

WHAT IS CLAIMED IS:

1. A solid-state image pickup apparatus permitting parallel readout comprising an image pickup section partitioned into blocks and a readout amplifier for each
5 block, the apparatus further comprising:

a marker signal source for supplying a required amount of charge; and

a marker signal generation section for generating marker signals having a same charge amount to be sent into two
10 adjacent blocks of the image pickup section from the charge supplied from the marker signal source,

wherein each of the blocks of the image pickup section transfers the marker signal sent from the marker signal generation section so that the marker signal is read out via
15 the readout amplifier for the block for correction of an output of the readout amplifier.

2. The apparatus of Claim 1, wherein the marker signal generation section comprises:

20 a marker charge storage portion for storing the charge supplied from the marker signal source; and

means for generating marker signals to be sent into two adjacent blocks of the image pickup section from the charge stored in the marker charge storage portion.

3. The apparatus of Claim 1, wherein the marker signal generation section comprises:

a marker signal transfer portion for transferring the charge supplied from the marker signal source as a common
5 marker signal; and

a marker signal branch portion for sending the common marker signal transferred from the marker signal transfer portion into two adjacent blocks of the image pickup section.

10 4. The apparatus of Claim 1, further comprising a horizontal CCD for each block coupled to the readout amplifier for each block,

wherein the image pickup section has a vertical CCD and is located between the marker signal generation section and
15 the horizontal CCD for each block.

5. The apparatus of Claim 1, wherein the marker signal generation section is shaded from light.

20 6. The apparatus of Claim 1, further comprising means for adding a plurality of marker signals each having a unit charge amount.

7. The apparatus of Claim 1, wherein the marker signal
25 source comprises an input source for supplying an amount of

charge corresponding to a given potential.

8. The apparatus of Claim 7, further comprising means for changing the potential at the input source.

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9. The apparatus of Claim 4, wherein the marker signal generation section has a vertical CCD, and the width of the vertical CCD is equal to or less than the width of the vertical CCD of the image pickup section.

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10. The apparatus of Claim 1, further comprising:

a marker signal memory for recording the marker signal for each block; and

a correction circuit for correcting an image output of the readout amplifier according to the record in the marker signal memory.

11. The apparatus of Claim 10, wherein the correction circuit is configured to attain nonlinear correction by performing linear conversion of the image output for each segment.

12. A method for driving a solid-state image pickup apparatus permitting parallel readout comprising an image pickup section partitioned into blocks and a readout

amplifier for each block, the method comprising the steps of:

generating marker signals for correction of outputs of
the readout amplifiers;

reading the generated marker signals having a same
5 charge amount via the readout amplifiers for two adjacent
blocks; and

generating another marker signal by adding a plurality
of marker signals each having a unit charge amount.

10 13. The method of Claim 12, further comprising the step
of:

executing the addition of marker signals in a vertical
CCD.